

***Aedes (Stegomyia) mattinglyorum*, A NEW SPECIES OF THE  
*Dendrophilus* GROUP (DIPTERA: CULICIDAE)**

YIAU-MIN HUANG

Department of Entomology, MSC-C1109, Smithsonian Institution, Washington, D.C.  
20560.

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**Abstract.** — Adults of both sexes, the pupa and larva of *Aedes (Stegomyia) mattinglyorum* n. sp. are described and illustrated. Characters for distinguishing the adults of *Ae. mattinglyorum* from closely allied species are given. The distribution of *Ae. mattinglyorum* is based on examined specimens.

**Key Words:** Culicidae, mosquitoes, *Aedes*, *dendrophilus* group

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A new species of *Aedes (Stegomyia)*, which is very similar to the *Aedes (Stegomyia) dendrophilus* Edwards (1921) and belongs to the *dendrophilus* group, was collected in West Africa (Sierra Leone and Ivory Coast). Additional specimens, misidentified as *Ae. dendrophilus*, were found in collections from the Services Scientifiques Centraux, Office de la Recherche Scientifique et Technique Outre-Mer (ORSTOM), the Division of Vector Borne Diseases (DVBD), Nairobi, Kenya, and The Natural History Museum (BMNH). Larvae of the new species often have been collected with larvae of *Ae. dendrophilus* in tree holes from a coffee plantation in Dezidougou, and in plastic bottles placed on ORSTOM study towers in forests from Dezidougou and Kofidougou, Ivory Coast.

Because the new species is microsympatric with *Ae. dendrophilus* Edwards, it is desirable to describe it here to avoid future confusion between it and *Ae. dendrophilus*, and point out, once again, that closely similar *Stegomyia* species are frequently found in the same larval habitat. The biting habits of this new species and its potential as a vector of human pathogens are unknown.

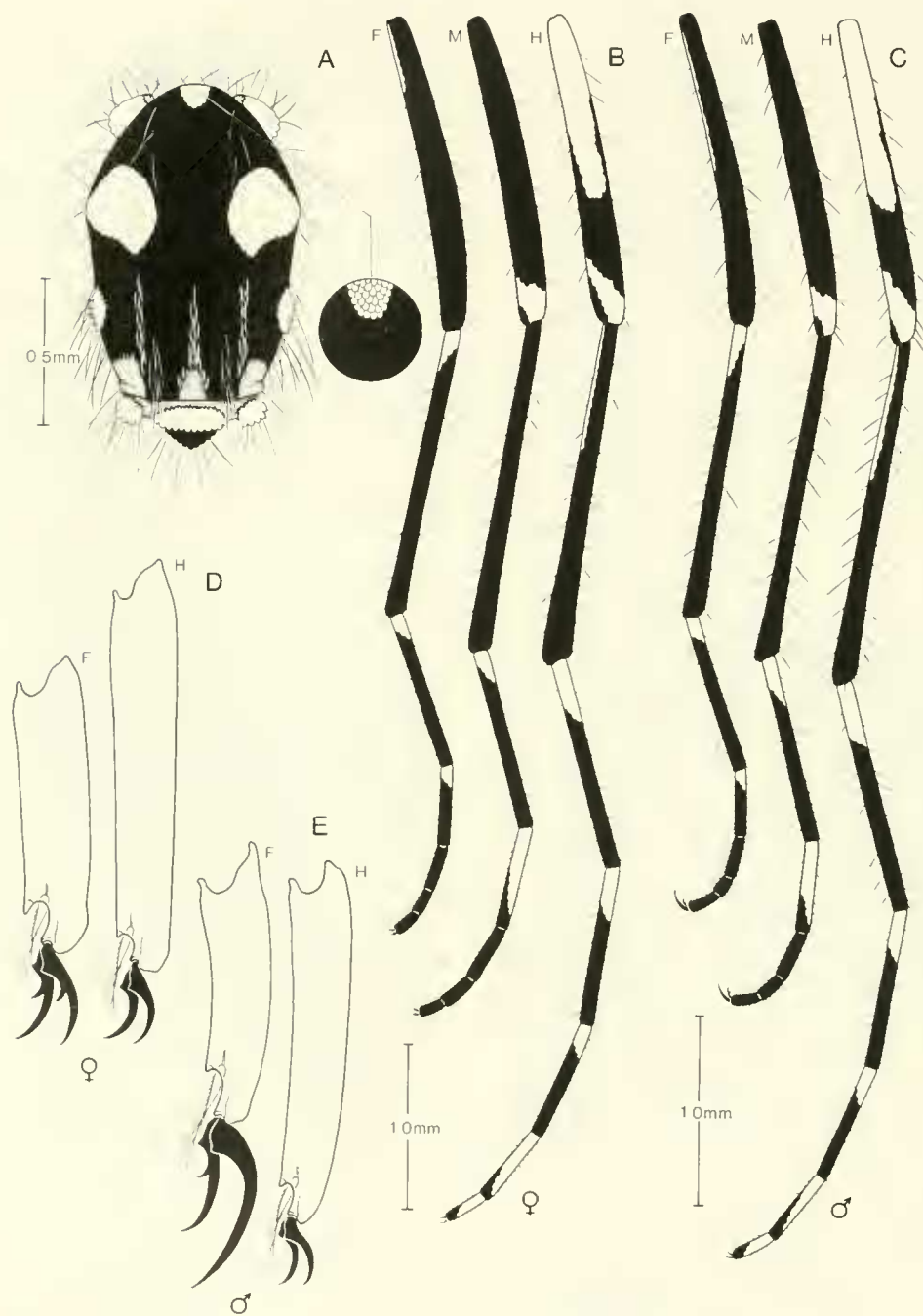
**MATERIALS AND METHODS**

This study is based on specimens collected by the Systematics of *Aedes* Mosquitoes Project (SAMP), Department of Entomology, National Museum of Natural History, Smithsonian Institution (USNM), and on specimens borrowed from the institutions mentioned in the acknowledgments section. Distributional records are listed in the following order and format: current country (capital letters), administrative division where known (italics), and place name (first letter capitalized).

The terminology follows that of Harbach and Knight (1980, 1982) with the exception of "tarsal claws" which is retained for "ungues," and the venation which follows that of Belkin (1962).

***Aedes (Stegomyia) mattinglyorum*  
Huang, New Species  
Figs. 1-4**

**Female.**—**Head:** Proboscis dark-scaled, without pale scales on ventral surface, longer than forefemur; maxillary palpus 0.19–0.22 length of proboscis, dark, with white scales on entire dorsal surface of palpomere

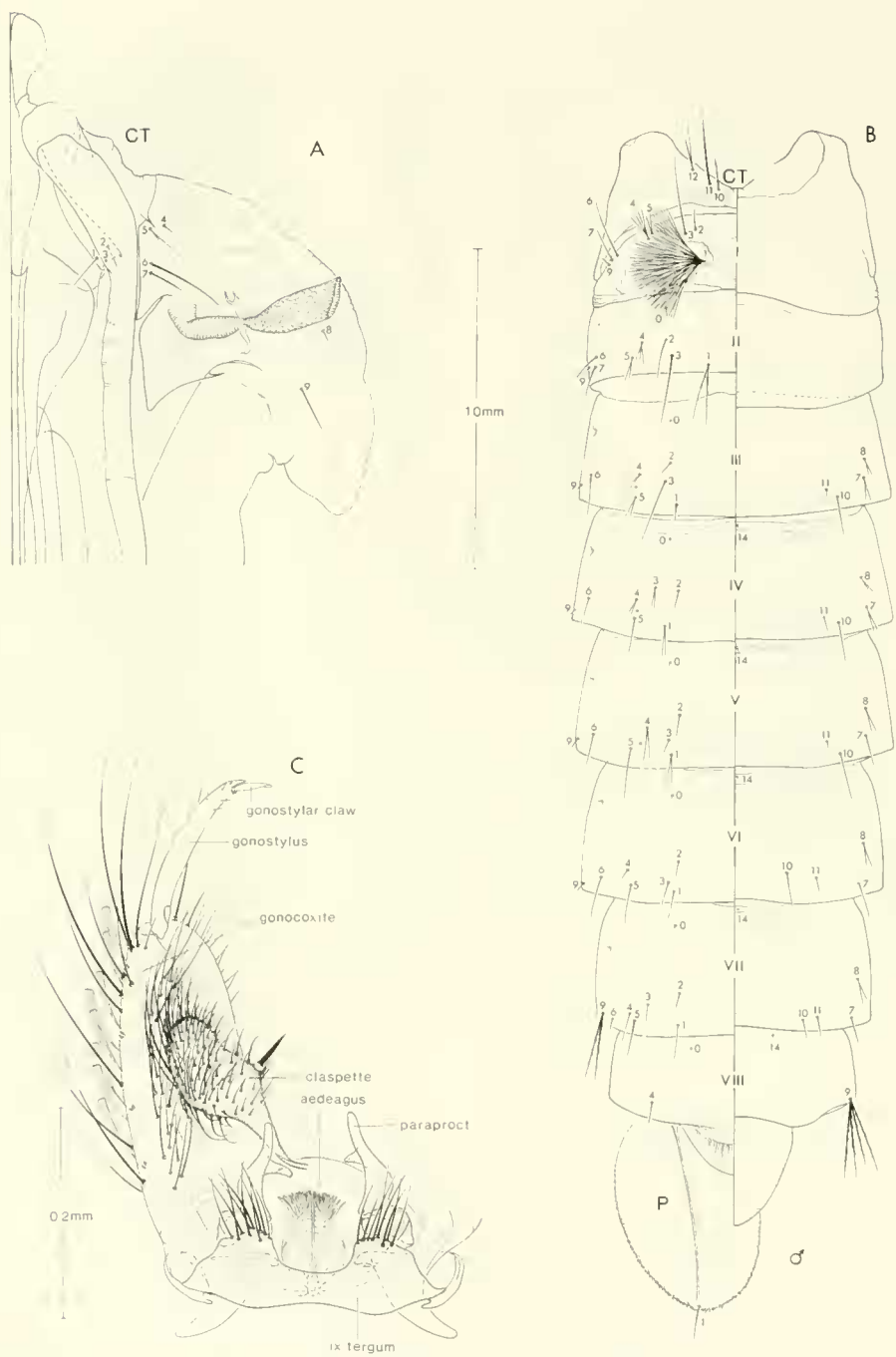


*Aedes (Stegomyia) mattinglyorum* n. sp.

Fig. 1. *Aedes (Stegomyia) mattinglyorum* n. sp. A. Dorsal aspect of the thorax of the paratype female. B. Anterior surface of the female legs. C. Anterior surface of the male legs. D. Female tarsal claws (fore- and hindlegs). E. Male tarsal claws (fore- and hindlegs).

4; pedicel covered with white scales except on dorsal surface, and with a few dark scales on flagellomere 1; clypeus bare; occiput with few erect forked scales; a row of broad white scales around margin of eye; vertex with a median stripe of broad white scales, with broad dark scales on each side interrupted by lateral stripe of broad white scales, followed ventrally by a patch of broad white scales. *Thorax* (Fig. 1A): Antepronotum with broad white scales; postpronotum with a small patch of broad white scales and a few dark narrow scales dorsally; scutum with narrow dark scales, and a distinct median white spot of broad scales on anterior promontory, with a short median longitudinal stripe of narrow white scales, extended to prescutellar area, absent on anterior 0.5–0.6 of scutum; prescutellar line of narrow white scales usually not present, with only a few narrow white scales; fossal area with a large patch of broader crescent-shaped white scales; posterior dorsocentral white line of narrow scales present, reaching to posterior 0.4 of scutum; a patch of narrow white scales on lateral margin just in front of wing root; acrostichal setae absent; dorsocentral setae present; scutellum with broad white scales on all lobes and with a few broad dark scales at apex of midlobe; paratergite with broad white scales; postspiracular area without scales; hypostigmal area without scales; patches of broad white scales on propleuron, subspiracular area, upper and lower portions of mesokatepisternum, and on mesepimeron; upper mesokatepisternal scale patch not extended to anterior corner of mesokatepisternum; upper mesepimeral scale patch connected with lower mesepimeral scale patch; lower mesepimeral scale patch much reduced or absent; lower mesepimeron without setae; metameron and mesopostnotum bare. *Wing*: With dark scales on all veins except for a minute basal spot of white scales on costa; cell  $R_2$  3.4–3.7 length of vein  $R_{2+3}$ . *Halter*: With dark scales. *Legs* (Fig. 1B): Coxae with patches

of white scales; white knee-spot absent on forefemur, present on mid- and hindfemora; forefemur anteriorly with a narrow, white longitudinal stripe on ventral surface in basal 0.17–0.33; midfemur anteriorly without a large, median white spot; hindfemur anteriorly with a broad, white longitudinal stripe in basal 0.57–0.62 that widens 0.22–0.29 from base; foretibia anteriorly dark with a basal white band; midtibia anteriorly dark, with a basal white spot on posterior surface; hindtibia anteriorly with a white longitudinal stripe on ventral surface in basal 0.31–0.42; fore- and midtarsi with a basal white band on tarsomeres 1 and 2; foretarsomere 1 with basal 0.10–0.18 white on dorsal surface; foretarsomere 2 with basal 0.26–0.39 white on dorsal surface; midtarsomere 1 with basal 0.15–0.29 white on dorsal surface; midtarsomere 2 with basal 0.86–0.97 white on dorsal surface; hindtarsus with a basal white band on tarsomeres 1–5, ratio of length of white band on dorsal surface to total length of tarsomere is 0.21–0.30, 0.26–0.34, 0.27–0.33, 0.82–0.91 and 0.70–0.77; fore- and midlegs with tarsal claws equal, all toothed; hindleg with tarsal claws equal, both simple (Fig. 1D). *Abdomen*: Tergum I with white scales on laterotergite; terga II–III with basolateral white spots; terga IV–VII each with a basal white band and basolateral white spots that do not connect with basal white band; basal white band on terga VI–VII usually rather long, extended to 0.5–0.6 length of tergum; sterna III–VII each with a basal white band; segment VIII largely retracted. *Genitalia*: Apical margin of sternum VIII with a median notch and with conspicuous rounded lateral lobes; insula longer than wide, with minute setae and with 3–5 larger setae on apical 0.5; tergum IX as long as broad, apical margin of tergum IX with well developed lateral lobes, each with 5–9 setae; apical margin of postgenital plate with a median notch; cercus short and broad; 3 spermathecae, one larger than other 2.



*Aedes (Stegomyia) mattinglyorum* n. sp.

Fig. 2. *Aedes (Stegomyia) mattinglyorum* n. sp. A, Dorsolateral aspect of the cephalothorax of the male pupa. B, Dorsal and ventral aspects of the metathorax and abdomen of the male pupa. C, Tergal aspect of the male genitalia.



Male.—Essentially as in female, differing in following sexual characters: *Head*: Maxillary palpus shorter than proboscis, predominantly dark, with a white band at base of palpomeres 2–5, those on palpomeres 4 and 5 dorsally incomplete; palpomeres 4 and 5 subequal, slender, dorsally curved and with only a few short setae; antenna plumose, shorter than proboscis. *Thorax*: Prescutellar line of narrow white scales usually present. *Wing*: Cell  $R_2$  1.7–2.5 length of vein  $R_{2+3}$ . *Legs* (Fig. 1C): Midtarsomere 2 with basal 0.91–0.96 white on dorsal surface; hindtarsomere 4 with basal 0.65–0.84 white on dorsal surface; hindtarsomere 5 with basal 0.60–0.82 white on dorsal surface; fore- and midlegs with tarsal claws unequal, the smaller one toothed, the larger one simple (Fig. 1E). *Abdomen*: Tergum III sometimes with a basal white band and basolateral white spots which do not connect with basal white band; sternum VIII with basolateral white spots. *Genitalia* (Fig. 2C): Gonocoxite 2.2 times as long as wide (width measured 0.5 from base), scales restricted to dorsolateral, lateral and ventral surfaces, with setae on dorsomesal surface, mesal surface membranous; claspette large, lobed, distal expanded portion oval in dorsal aspect (lateral and mesal sides more or less parallel), with numerous simple setae on the expanded distal portion and bearing 1 strong, basally widened spine-like seta on basomesal corner; gonostylus simple, elongate, about 0.7 length of gonocoxite, with a long slender gonostylar claw at apex and with a few setae in apical 0.60; aedeagus strongly toothed; paraproct with a sternal arm; cercal setae absent; apical margin of tergum IX deeply concave medially with 8–12 setae on lateral lobe; sternum IX without setae.

Pupa (Figs. 2A, 2B).—*Cephalothorax*: Trumpet about 3.3 times as long as wide (width measured 0.5 from base); setae 1, 3-CT single, longer than 2-CT; 2-CT single; 4-CT usually single (1–2); 5-CT usually double (1–3); 6-CT single, stout, slightly

longer than 7-CT; 7, 8-CT usually single (1–2); 9-CT single, longer than 8-CT; 10-CT usually single (1–2), barbed, caudomesad of 11-CT; 11-CT single, stout; 12-CT usually double (1–2). *Abdomen*: Seta 1-I well developed, with more than 10 dendritic branches; 2-I single; 3-I single, long; 2-I and 3-I widely separated, distance between their bases about 1.5 times distance between those of 4-I and 5-I; seta 1-II usually double (2–4), barbed; 3-II, III usually single (1–2); 1-III usually single (1–3); 1-IV usually double (1–2); 2-IV, V anteromesad of 1-IV, V respectively; 5-IV–VI usually single (1–2), short, not extended beyond posterior margin of following segment; seta 9-I–II small, single, simple; 9-III–VI single, simple; 9-VIII usually double (1–2) and barbed; 9-VII, VIII much longer and stouter than 9-I–VI; 9-VIII usually with 4 branches (3–7) and barbed. *Paddle*: Oval, about 1.3 times as long as wide; margins with distinct denticles, without fringe of long seta-like spicules; seta 1-P single.

Larva (Fig. 3).—*Head*: Antenna short, less than 0.5 length of head, without spicules; seta 1-A inserted in apical 0.5 of shaft, single; inner mouthbrushes apically pectinate; seta 4-C well developed, usually with 4 branches (3–6), anteromesad of 6-C; 5-C usually single (1–2), long, barbed; 6-C usually single (1–2); 7-C usually double (1–2); 8–10, 13-C single; 11-C usually double (2–3), barbed; 12-C usually double (2–4); 14-C usually 3-branched (2–6), barbed; 15-C usually 3-branched (2–3); mentum usually with 11 (10–12) teeth on each side of central tooth. *Thorax*: Seta 1-P usually 3-branched (2–4), barbed; 2-P single; 3, 4-P usually double (2–3); 5-P usually double (2–4), barbed; 6-P single, barbed; 7-P usually double (2–3), barbed; 9-P usually single (1–2); 11-P double; 14-P usually double (2–3); 5, 7-M single, barbed; 6-M usually 3-branched (2–3), barbed; 8-M usually 3-branched (3–4), barbed; 9-M double, barbed; 10, 12-M single, long, stout and barbed; 11-M single, small; 7-T usually with 4 branches (4–5),

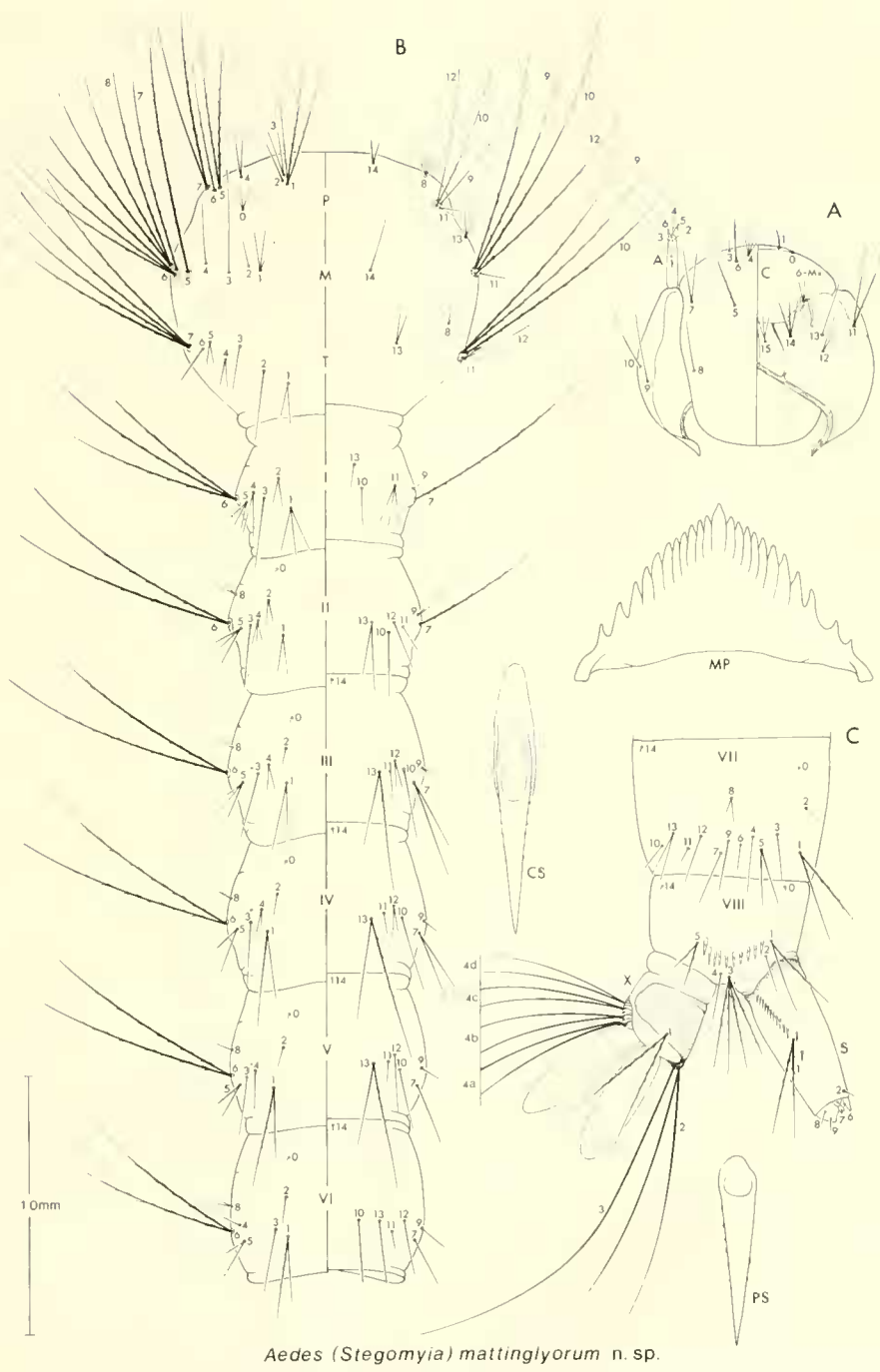
barbed; 9-T double, barbed; 10, 11-T similar to those on mesothorax; 12-T much reduced, single, simple; basal spine of meso- and metapleural setal groups long, apically pointed. *Abdomen*: Seta 6-I usually 3-branched (2-4), barbed; 7-I single, barbed; 6-II usually double (2-3), barbed; 6-III-VI double, barbed; 7-II usually single (1-2), barbed; 1-VII double, barbed; 2-VII usually single (1-2); 2-VIII distant from 1-VIII; 1, 5-VIII usually double (2-3), barbed; 3-VIII usually with 4 branches (3-5), barbed; 2, 4-VIII single; comb with 9-10 scales in a row, each scale with free portion widened at base and sharply pointed at apex, and with fine denticles basal of apical spine; saddle incomplete, marginal spicules very small and inconspicuous; seta 1-X double, barbed; 2-X double; 3-X single; 4-X with 4 pairs of setae on grid, 4a, b, c-X double, 4d-X usually double (1-2); no precratal tufts; anal papillae subequal, about 2.0 times length of saddle, sausage-like. *Siphon*: 2.4 times as long as wide 0.5 from base, acus absent; usually with 12 (11-17) pecten spines, evenly spaced, with apical 1-2 spines widely separated from remainder, each spine usually with fine denticles on ventral side, or sometimes on both sides; seta 1-S usually double (1-2), barbed, inserted at middle of siphon and before last pecten spine.

Type data.—Holotype male (SAMP Acc. 1093/Sierra Leone 1984, #30-26, Y. M. Huang), with associated larval and pupal skins on slide, with genitalia on slide (92/399), Tiwai Island (7°30'N, 11°20'W) (on the Moa River), Potoru, *Southern Province*, SIERRA LEONE, collected as larva from a plastic bottle, placed on a tree, about 1.5 m above ground level, partially shaded, in the forest, 7-V-1984 (Y. M. Huang). Deposited in the National Museum of Natural History, Smithsonian Institution, Washington, D.C. [USNM]. Paratypes (SAMP Acc. 1093): 3 males (#30-12, -13, -29), with associated larval and pupal skins on slides, with genitalia on slides (92/398, 92/192, 92/193) and 4 females (#30-23, -24, -25, -27, -28), with

associated larval and pupal skins on slides, with genitalia on slides (92/194, 92/195), same data as holotype [USNM]; 1 male (#30-21), with associated larval skin on slide, with genitalia on slide (92/196) and 1 female (#30-22), with associated larval skin on slide, same data as holotype [USNM]; 3 males (#30-101, -102, -103), with associated pupal skins on slides, with genitalia on slides (92/197, 92/198, 92/199) and 1 female (#30-106), with associated pupal skin on slide, same data as holotype [USNM]; 1 4th-instar larva (#30), same data as holotype [USNM].

Other material examined.—GHANA.—*Eastern Region*: Nsawam (5°48'N, 0°20'W), Gold Coast, 14-IV-1920, Dr. A. Ingram, (B.M., 1920-227), from larvae in rot hole in Cotton tree, 1 ♀ (MEP Acc. 719) [BMNH]; Aburi (5°51'N, 0°10'W), Gold Coast, 6-VI-1920, Dr. A. Ingram, (B.M., 1921-45), banana, 1 ♀ (MEP Acc. 719) [BMNH]. *Accra Region*: Accra (5°33'N, 0°13'W), Gold Coast, 1920-23, J. W. S. Macfie, 1 ♂ (#77), 2 ♀ (#78, #80), 1 ♂ gen (MEP Acc. 719, 92/184) [BMNH]; same data, 1 ♂, 1 ♀, 1 ♂ gen (MEP Acc. 719, 92/185) [BMNH]; same data, 1 ♂, 1 ♂ gen (MEP Acc. 808, 92/190) [DVBD]; same data, 1 ♂, 1 ♂ gen (MEP Acc. 1036, 92/191) [DVBD].

IVORY COAST.—*Sud, Departement du*: Abidjan (5°19'N, 4°02'W), 4-5-VI-1959, J. Hamon, 2 ♀ (MEP Acc. 724) [ORSTOM]; same data except 2-V-1985, Y. M. Huang, plastic bottles placed on trees, 1.0-1.5 m above ground (IV 7, IV 28), partially shaded, in forest, 3 ♂, 1 ♀, 4 individual rearings (4 l, 4 p), 1 L, 1 ♂ gen (SAMP Acc. 1138, IV 7, 92/613) [USNM]; Daine (6°29'N, 8°32'W), 24-III-1960, J. Hamon, tree hole, 1 ♂, 1 ♂ gen (MEP Acc. 724, 92/187) [ORSTOM]; Eremankono (5°33'N, 5°22'W), 8-VIII-1963, J. Hamon & Brengues, 1 ♀ (MEP Acc. 724) [ORSTOM]; Tiassale (6°02'N, 4°50'W), VI-1965, J. Hamon, 1 ♀ (MEP Acc. 724) [ORSTOM]; Tiassale, Ville (4°38'N, 6°55'W), 16-VI-1965, J. Hamon, light trap, 1 ♀ (MEP Acc. 724) [ORSTOM]. *Est, Departement de l'*: Bondoukou, Goli



*Aedes (Stegomyia) mattinglyorum* n. sp.

Fig. 3. *Aedes (Stegomyia) mattinglyorum* n. sp. fourth instar larva. A, Dorsal (left) and ventral (right) aspects of the head. B, Dorsal (left) and ventral (right) aspects of the thorax and abdomen. C, Lateral aspect of the terminal abdominal segments.

(8°04'N, 2°51'W), 14-VI-1967, J. Hamon & G. Pichon, 1 ♂ (MEP Acc. 724) [ORSTOM]; Tangamourou, Tanda (7°36'N, 3°12'W), 15-VI-1967, J. Hamon & G. Pichon, 1 ♀ (MEP Acc. 724) [ORSTOM]; Taban (7°59'N, 3°04'W), 15-VI-1968, 1 ♂, 1 ♂ gen (MEP Acc. 724, 92/189) [ORSTOM]. *Centre, Département du:* M'Bahiakro, Dezidougou (7°44'N, 4°16'W), 22-V-1985, B. Bouchite, sweeping, 1 ♂, 1 ♂ gen (SAMP Acc. 1138, IV 167, 92/401) [USNM]; same data except 24-V-1985, Huang & Pecor, plastic bottles placed on ORSTOM study tower, 4 m above ground (IV 148, IV 149), 17 ♂, 13 ♀, 30 individual rearings (18 l, 27 p), 2 L, 2 ♂ gen, 1 ♀ gen (SAMP Acc. 1138, IV 148, 85/211, 85/212; IV 149, 92/610) [USNM]; same data except 16 m above ground (IV 137, IV 138, IV 139), 7 ♂, 7 ♀, 6 individual rearings (5 l, 6 p), 1 ♂ gen, 1 ♀ gen (SAMP Acc. 1138, IV 138, 92/608, 92/609) [USNM]; same data except 26–30-V-1985, Huang & Pecor, small tree holes (coffee tree), 0.33–3.0 m above ground (IV 194–IV 197, IV 200–IV 202, IV 232, IV 237, IV 241–IV 245, IV 247–IV 254, IV 256, IV 258, IV 259, IV 263–IV 265, IV 269, IV 271, IV 273, IV 276, IV 279, IV 281), partially shaded in coffee plantation, 61 ♂, 52 ♀, 20 individual rearings (17 l, 20 p), 3 ♂ gen (SAMP Acc. 1138, IV 248, 92/615; IV 249, 92/616; IV 258, 92/617) [USNM]; same data except 27-V-1985, Huang & Pecor, leaf axils (pineapple), partially shaded, 3 ♂, 3 ♀, 6 individual rearings (4 l, 6 p) (SAMP Acc. 1138, IV 206, IV 209) [USNM]; same data except 29-V-1985, Huang & Pecor, rot hole (coffee tree), partially shaded, in coffee plantation, 3 ♂ (SAMP Acc. 1138, IV 255) [USNM]; same data except 30-V-1985, Huang & Pecor, stump hole, 0.33 m above ground, partially shaded, 5 ♂, 4 ♀ (SAMP Acc. 1138, IV 270) [USNM]; same data except log hole on ground, partially shaded, 3 ♂, 2 ♀ (SAMP Acc. 1138, IV 272) [USNM]; same data except large pot on ground, 1 ♂ (SAMP Acc. 1138, IV 282) [USNM]; same data except 2-VI-1985, Huang & Pecor, stump hole,

partially shaded, 5 ♂, 4 ♀ (SAMP Acc. 1138, IV 299) [USNM]; same data except 2–4-VI-1985, Huang & Pecor, tree holes, 0.33–2.0 m above ground, 27 ♂, 30 ♀ F (SAMP Acc. 1138, IV 293, IV 304, IV 306, IV 307, IV 309, IV 311, IV 314, IV 315, IV 317–IV 320, IV 325, IV 328–IV 332) [USNM]; Kofidougou (7°45'N, 4°19'W), 26-V-1985, Huang & Pecor, plastic bottles placed on ORSTOM study tower, 12 m above ground (IV 158, IV 161), 8 ♂, 13 ♀, 21 individual rearings (10 l, 17 p), 8 L, 2 ♂ gen (SAMP Acc. 1138, IV 161, 85/216, 85/217) [USNM]; same data except 28-V-1985, Huang & Pecor, leaf axil (lily), partially shaded, 1 ♂ (SAMP Acc. 1138, IV 224) [USNM]; KM 2, 24-V-1985, Huang & Pecor, plastic bottle placed on ORSTOM study tower, 9 m above ground, 6 ♂, 4 ♀, 10 individual rearings (10 l, 10 p), 3 L, 2 ♂ gen, 1 ♀ gen (SAMP Acc. 1138, IV 157, 92/611, 92/612, 92/614) [USNM]. Ivory Coast (Cote d'Ivoire), 8-III-1956, J. P. Adam, bamboo, 1 ♂ (#002), 1 ♀ (#004), 1 ♂ gen (MEP Acc. 724, 92/601) [ORSTOM].

**NIGERIA.**—*Western:* Ibadan (7°23'N, 3°50'E), VII–VIII-1929, H. W. Kumm, (B.M., 1929-591), 1 ♂ (#30), 1 ♂ gen (MEP Acc. 719, 92/186) [BMNH].

**SIERRA LEONE.**—*Western area:* Free-town (8°30'N, 13°10'W), IX-1914, Dr. G. Butler, (B.M., 1915-201), larva in tree hole at hill station, 1 ♀, 1 ♀ gen (MEP Acc. 719, 92/224) [BMNH]. *Southern Province:* Tiwai Is. (7°30'N, 11°20'W), 7-V-1984, Y. M. Huang, (SAMP Acc. 1093), plastic bottles placed on trees, 0.5–2.0 m above ground, deeply shaded, in forest, 15 ♂, 28 ♀ (#3, #4, #10, #17, #18, #25–#27), 43 individual rearings (24 l, 26 p), 4 ♂ gen (SAMP Acc. 1093, #27, 85/230, 85/231; #18, 92/266, 92/267), 2 ♀ gen (SAMP Acc. 1093, #25, 92/268; #26, 92/269) [USNM]; same data except 0.5–2.0 m above ground, partially shaded, in forest, 22 ♂, 24 ♀ (#5–#7, #12, #28, #29, #32), 46 individual rearings (30 l, 44 p), 2 ♂ gen (SAMP Acc. 1093, #29, 92/270; #32, 92/271), 2 ♀ gen (SAMP Acc. 1093,



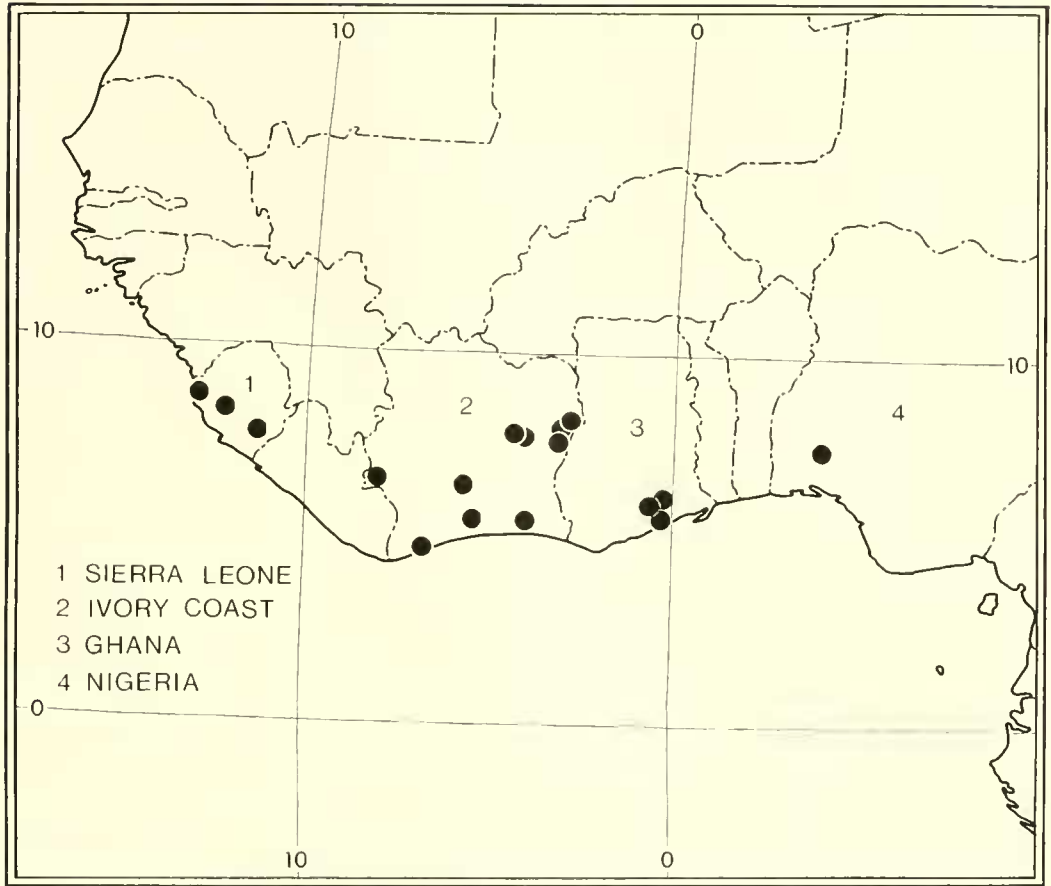


Fig. 4. Distribution of *Aedes (Stegomyia) mattinglyorum* n. sp. in Africa based on specimens examined.

#6, 92/275; #32, 92/341) [USNM]; same data except 3.5 m above ground, deeply shaded, in forest, 2 ♂ (#1-21, 107), 2 individual rearings (1 l, 2 p), 1 L (#1), 1 ♂ gen (SAMP Acc. 1093, 92/272) [USNM]; same data except 5.5 m above ground, partially shaded in forest, 1 ♂ (#13-100), 1 ♀ (#13-12), 2 individual rearings (1 l, 2 p), 1 ♂ gen (SAMP Acc. 1093, 92/273) [USNM]; same data except 15-V-1984, Y. M. Huang, tree hole, 2.33 m above ground, partially shaded, 1 ♀ (#82-11), 1 individual rearing (1 l, 1 p), 1 ♀ gen (SAMP Acc. 1093, 92/274) [USNM]; same data except 8-VI-1984, Y. M. Huang, bamboo stump, 1.33 m above ground, partially shaded, 3 ♂ (#196-12, 13, 100), 3 individual rearings (2 l, 3 p), 2 ♂ gen

(SAMP Acc. 1093, 85/232, 85/233) [USNM]; Kasewe Forest Reserve (8°19'N, 12°13'W), 29-V-1984, Huang & Pecor, tree hole, 1.33 m above ground, partially shaded, 1 ♂, 1 ♀ (#153-10, 11), 2 individual rearings (2 l, 2 p) [USNM].

Distribution (Fig. 4).—*Aedes mattinglyorum* is known from Ghana (Gold Coast), Ivory Coast (Cote d'Ivoire), Nigeria, and Sierra Leone. The distribution records of *Ae. dendrophilus* from the Afrotropical Region will require confirmation owing to confusion with *Ae. mattinglyorum*.

Etymology.—This species is named to honor Dr. Peter F. Mattingly and his wife, Christine, in appreciation of their kindness to me while visiting the Natural History

Museum, London, and in recognition of Dr. Mattingly's many contributions to our knowledge of the family Culicidae.

**Taxonomic discussion.**—*Aedes* (*Stegomyia*) *mattinglyorum* is a member of the *dendrophilus* group, which contains, at least, the following 10 species and subspecies (*Ae. dendrophilus* Edwards, 1921; *Ae. masseyi* Edwards, 1923; *Ae. deboeri* Edwards, 1926; *Ae. bambusae* Edwards, 1935; *Ae. demelloni* Edwards, 1936; *Ae. amaltheus* de Meillon and Lavoipierre, 1944; *Ae. keniensis* Van Someren, 1946a; *Ae. bambusae* ssp. *kenyae* Van Someren, 1946b; *Ae. heischi* Van Someren, 1951 and *Ae. mattinglyorum* n. sp.). The *dendrophilus* group is characterized by the following combination of characters: (1) maxillary palpus with white scales; (2) scutum with dorsocentral setae, and (3) with a distinct patch of white or yellow scales on fossal area; (4) subspiracular area with broad white scales; (5) postspiracular area without scales; (6) paratergite with broad white scales; (7) scutellum with broad white scales on all lobes; (8) white knee-spot absent on forefemur, present at least on midfemur; (9) midfemur without a large, median white spot on anterior surface; (10) hindtarsus with a basal white band at least on tarsomeres 1 and 2, and tarsomere 3 with or without basal white band. *Aedes mattinglyorum* differs from congeners of the *dendrophilus* group by the following combination of characters: (1) scutum with anterior median white spot of broad scales; (2) hindtibia with a white longitudinal stripe on ventral surface in basal 0.31–0.42; (3) hindtarsomere 3 with basal 0.27–0.33 white on dorsal surface; and (4) hindtarsomeres 4 and 5 with basal white band.

Adults of *Ae. mattinglyorum* closely resemble those of *Ae. dendrophilus* in the scutal markings but can be distinguished from the latter by the scutum with anterior median white spot of broad scales. This same character state of *Ae. mattinglyorum* is extremely similar to *Ae. keniensis*. However, *Ae. mattinglyorum* can be distinguished eas-

ily from *Ae. keniensis* by the hindtibia with a white longitudinal stripe on ventral surface in basal 0.31–0.42 and by the hindtarsomere 5 with the basal 0.60–0.82 white on the dorsal surface. In *Ae. keniensis*, the hindtibia has no white stripe on the ventral surface in the basal area and hindtarsomere 5 is all dark.

The male genitalia of *Ae. mattinglyorum* are easily differentiated from all other species in the *dendrophilus* group by the claspette, which has the distal expanded portion oval in dorsal aspect (lateral and mesal sides more or less parallel), with numerous simple setae on the expanded distal portion and bearing 1 strong, basally widened, spine-like seta on the basomesal corner.

*Aedes mattinglyorum* is apparently a West African forest species. Based on the present collection data, *Ae. mattinglyorum* occurs in habitats at altitudes between <166 and 466 m (<500–1400 ft) with yearly rainfall of 63.5–406.4 cm (25–160 in).

**Remarks.**—Edwards (1941: 140) treated *Aedes* (*Stegomyia*) *dendrophilus* as a single species. In a discussion on variation, however, Edwards (1941: 141) noted: "Two forms are distinguishable in the material in the British Museum: A very small form . . . ; and a larger form . . . . The type series from Oblogo all belong to the small form, but both are represented among the specimens from Nsawam. Both lots were reared from tree-holes", and he considered both forms as *Aedes* (*Stegomyia*) *dendrophilus*.

Edwards' (1941) concept of *Ae. dendrophilus* as a single species is incorrect as he did not realize that *Ae. dendrophilus* included two distinct species, usually sympatric, that are difficult to separate morphologically. However, the specimens that Edwards (1941: 141) regarded as a larger form of *Ae. dendrophilus* in the BMNH collection are not *Ae. dendrophilus*, but are the new species *Ae. mattinglyorum*.

**Bionomics.**—The immature stages of *Ae. mattinglyorum* have been collected from the following: tree holes in Ghana, the Ivory

Coast, and Sierra Leone; rot holes and leaf axils (banana, pineapple, lily) in Ghana and the Ivory Coast; stump holes and log hole in the Ivory Coast; bamboo pots and bamboo stump in the Ivory Coast and Sierra Leone; plastic bottles placed on trees in forests on Tiwai Island, Sierra Leone and in Abidjan, Ivory Coast, and on study towers in Dezidougou and Kofidougou, Ivory Coast. The female of this species has been collected from a light trap in Ville, Ivory Coast.

*Aedes mattinglyorum* has been collected with *Ae. africanus* (Theobald) from Tiwai Island, Sierra Leone; it also occurs with *Ae. dendrophilus* from Nsawam, Ghana, and Dezidougou and Kofidougou, Ivory Coast.

Medical importance.—Unknown.

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